

CONTACT DUPLICATING AND RESEAU PRINTER

AND

HIGH RESOLUTION STEP AND REPEAT PRINTER

TWENTY-THIRD MONTHLY LETTER REPORT

June 10, 1966

Period: May 1, 1966 to June 1, 1966



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NGA Review  
Complete

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## 1.0 CONTACT DUPLICATING AND RESEAU PRINTER

### 1.1 Purpose

The overall objective of the current contract is the design, fabrication, test, and delivery of a Photographic, Step and Repeat, Contact Duplicating and Reseau Printer. Prime design goals are high-speed automatic operation, variable format capability and high resolution with minimum film distortion or damage. The delivered equipment will be suitable for operational use. The printer will accommodate films of 70 mm to 9 1/2" width with frame lengths up to 30 inches and will provide operation in the reseau mode and selective mode as options.

### 1.2 Activity of this Report Period

The Pre View and Punch Station has been completed. The problems associated with punching thick-base mylar films and with illumination of the viewing area have been corrected. Remaining work to be done is calibration of the microscope reticle to the central reseau grid line in the Printer.

The primary effort this month was completion of all assembly work and start of system test and debug. The frame separation detector was made operational in all modes and was successfully tested with the six special rolls of test film recently approved by the technical monitors. Remaining work to be done in this

area is primarily calibration of the control dials and the timing circuits.

Dodge circuit calibration is approximately 90% complete; however, failure of a critical power supply and subsequent failure of some solid state components have caused a setback in the completion of this portion of the test program. A new power supply has been received and additional tests are in progress to determine the cause and total extent of the unexpected failure. A double-shift was initiated to speed up this portion of the program.

Total system operation has uncovered some deficiencies in the mechanical linkages used to raise and lower the bag mechanism in the platen area. These are being redesigned in parallel with system test and all attempts are being made to minimize further delays.

Preliminary tests of the exposure control system are extremely encouraging. The basic system appears to be functioning as designed.

A meeting was held at the [ ] facility with S. STAT

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[ ] at which program progress was discussed.

Printer cycling operation was demonstrated in the manual and

automatic modes, and the frame separation detector was operated with the transport drawer withdrawn. The Pre View and Punch Station was reviewed and discussed. It was agreed that experts from GIMRADA would examine the assembly in the near future from a human factors operational standpoint. Of primary concern was possible operator fatigue if total sit-down operation was unfeasible. Possibilities of tilting the entire mechanism were discussed and are presently under investigation by [ ]

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1.3 Plans for Next Period

Completion of all test and delivery of Printer. A revised schedule is in progress and will be submitted to the contracting officer.

1.4 Problems

A double shift schedule has been initiated to attempt to complete all test and debug as quickly as possible. [ ]

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study of the Pre View and Punch Station will be initiated by the technical monitor.

1.5 Documentation

Test films for the Pre View and Punch Station were examined by the technical monitors and approved for use during the acceptance tests.

1.6 Questions Outstanding

Additional dollars for overrun have not been received and may cause delay of delivery of the printer.

2.0 HIGH RESOLUTION STEP AND REPEAT PRINTER

2.1 Purpose

The purpose of this effort is to design, fabricate, test and deliver in twenty months a high precision, step and repeat, photographic contact printer. This printer will be capable of producing photographic contact prints of the highest possible quality, resolution, and acutance from roll films of width varying from 70 mm to 9 1/2" and in preselected frame lengths from 5 inches up to a maximum of 30 inches.

2.2 Activity of This Report Period

There was no activity this period. Contract status has not been resolved.

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